

**Notice of Allowability**

Application No.

09/709,759

Examiner

Dustin Nguyen

Applicant(s)

LIAW ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/26/2007.
2. ☒ The allowed claim(s) is/are 4-9, 11, 12, 16-22, 24-28 now renumbered as 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

  
NATHAN J. FLYNNSUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicants' attorney, Mr. Abhik Huq, on 03/23/2007.

Please amend claims 4, 7, 8, 12, 16, 17, 21-25, 27 and 28 as follows:

4. (Currently Amended) A computer switching system comprising:
    - a user interface device for multiplexing signals output from a connected keyboard and cursor control device and for providing an interface to a video display;
    - a switch unit for enabling communication between said user interface device and a plurality of remotely located computers, said switch unit coupled to said user interface device by a single first connection; and
    - a plurality of computer interface modules each coupled to said switch unit by a single second connection, each of said computer interface modules coupled to at least one of said remotely located computers;
- wherein video signals output from said remotely located computers are transmitted to said video display via said switch unit;

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wherein said user interface device comprises an amplification circuit for automatically amplifying said transmitted video signals based on analyzing at least a an encoded synchronization signal having a predetermined signal characteristic transmitted with a component of said video signal and comparing said encoded synchronization signals to a signal of known shape to determine a degradation of said encoded synchronization signal;

wherein said user interface device receives keyboard and cursor control device signals, packetizes at least one of said keyboard or cursor control signals and transmits said packetized signal with command data to said switch unit; and

wherein said switch unit interprets said command data which identifies at least one of said remotely located computers, generates an emulated keyboard or cursor control device signal based on said packetized signal and transmits said emulated signal to said identified remotely located computer.

7. (Currently Amended) A system according to claim 5, wherein said encoded synchronization signal is transmitted with one of said components of said video signals on one of said twisted pair conducting wires.

8. (Currently Amended) A system according to claim 4, wherein said encoded synchronization signal is decoded by said user interface device.

12. (Currently Amended) A system according to claim 4, wherein said amplification circuit amplifies amplitude and frequency components of said video signals by analyzing said encoded synchronization signal.

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16. (Currently Amended) A system according to claim 4, wherein said encoded synchronization signal is horizontal or vertical synchronization signal.

17. (Currently Amended) A computer switching system comprising:

a user station including a keyboard, cursor control device and video display;

a switch for enabling communication between said user station and a plurality of remotely located computers, wherein said switch is coupled to said user station by a first connection; and

a plurality of computer interface modules each coupled to a communication circuit of one of said plurality of remote computers and each of said computer interface modules coupled to said switch by a second connection;

wherein said user station receives keyboard and cursor control device signals, packetizes at least one of said keyboard or cursor control device signals, and transmits said packet with command data to said switch;

wherein said switch interprets said command data in said packet to determine a destination of said packet, emulates keyboard or cursor control device signals, and transmits said emulated keyboard or cursor control device signal to said destination;

wherein one of said computer interface modules receives video signals having red, green, and blue components from one of said remote computers and encodes synchronization signals onto at least one of said components for transmission to said user station through said switch; and

wherein said user station analyzes said encoded synchronization signals having a predetermined signal characteristic to automatically amplify one or more frequency components

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of said video signals and compares said encoded synchronization signals to a signal of known shape to determine a degradation of said encoded synchronization signals.

21. (Currently Amended) A system according to claim 17, wherein said encoded synchronization signals are encoded as negative signals.

22. (Currently Amended) A system according to claim 17, wherein said encoded synchronization signals comprise horizontal or vertical synchronization signals.

23. (Cancelled).

24. (Currently Amended) A system according to claim ~~23~~ 17, wherein said user station amplifies said one or more frequency components of said video signals to compensate for said degradation.

25. (Currently Amended) A method for remotely operating a remote computer, said method comprising the steps of:

receiving keyboard signals from a local keyboard at a user station;

receiving cursor control device signals from a local cursor control device at said user station;

transmitting said keyboard and cursor control device signals with command data to a central switch;

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interpreting said command data and said keyboard and cursor control device signals, said central switch including a circuit for producing emulated keyboard and cursor control device signals at said central switch;

transmitting said emulated keyboard and cursor control device signals to said remote computer;

receiving video signals at said central switch from said remote computer in response to said emulated keyboard and cursor control device signals;

amplifying at least one frequency component of said video signals based on analyzing encoded synchronization signals having a predetermined characteristic signal transmitted with said video signals to produce tuned video signals for display at said user station; and

comparing said encoded synchronization signals to a signal of known shape to determine a degradation of said encoded synchronization signals.

27. (Currently Amended) A method according to claim 25, further comprising the step of:

analyzing said encoded synchronization signals to determine a level of amplification for said at least one frequency component of said video signals.

28. (Currently Amended) A method according to claim 25, wherein said encoded synchronization signals comprise horizontal or vertical synchronization signals.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Follansbee John can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dustin Nguyen  
Examiner  
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